

Accepted Manuscript

Title: Figuration of Zr-based MOF@Cotton Fabric Composite for Potential Kidney Application

Authors: Reda M. Abdelhameed, Mohamed Rehan, Hossam E. Emam



PII: S0144-8617(18)30517-4
DOI: <https://doi.org/10.1016/j.carbpol.2018.04.122>
Reference: CARP 13576

To appear in:

Received date: 15-2-2018
Revised date: 22-4-2018
Accepted date: 30-4-2018

Please cite this article as: Abdelhameed, Reda M., Rehan, Mohamed., & Emam, Hossam E., Figuration of Zr-based MOF@Cotton Fabric Composite for Potential Kidney Application. *Carbohydrate Polymers* <https://doi.org/10.1016/j.carbpol.2018.04.122>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Figuration of Zr-based MOF@Cotton Fabric Composite for Potential Kidney Application

Reda M. Abdelhameed ^{1,*}, Mohamed Rehan ², Hossam E. Emam ^{2,*}

¹ Applied Organic Chemistry Department, National Research Centre, Scopus affiliation ID 60014618, 33 EL Buhouth St., Dokki, Giza, 12622, Egypt

² Pretreatment and Finishing of Cellulosic Fibers, Textile Research Division, National Research Centre, Scopus affiliation ID 60014618, 33 EL Buhouth St., Dokki, Giza, 12622, Egypt

* Corresponding author; Tel.: +201008002487, E-mail address: hossamelemam@yahoo.com (Hossam E. Emam), reda_nrc@yahoo.com (Reda M. Abdelhameed)

Graphical abstract

Highlights

- UiO-66-(COOH)₂ was formed within Cotton fabrics via using quite simple technique.
- The prepared composite was used in removal of creatinine from mimic blood.
- The maximum adsorption capacity of creatinine onto composite was 212.8 mg/g.
- After 3 regeneration cycles, the applied composite removed 82% from creatinine.

Abstract

Download English Version:

<https://daneshyari.com/en/article/7782304>

Download Persian Version:

<https://daneshyari.com/article/7782304>

[Daneshyari.com](https://daneshyari.com)